REMARKS

At the outset, the Examiner is thanked for the thorough review and consideration of the pending application. The final Office Action dated January 26, 2006, has been received and its contents carefully reviewed.

By this response, claims 1, 5 and 9 have been amended to correct minor errors. Claims 1-11 and 14-20 remain pending in this application.

In the Office Action, claims 1-11, 14-20 are rejected under 35 U.S.C. § 112, first paragraph as failing to comply with the written description requirement. Claims 1-7 are rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Publication No. 2001/0038372 to Lee (hereinafter "Lee"). Claims 8-13 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Lee in view of U.S. Publication No. 2001/0043178 to Okuzono et al. (hereinafter "Okuzono").

The rejection of claims 1-11, 14-20 under 35 U.S.C. § 112, first paragraph as failing to comply with the written description requirement is respectfully traversed and reconsideration is requested. In the Office Action, the Examiner rejects the claims as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the art that the inventor, at the time the application was filed, had possession of the claimed invention. In particular, the examiner points to claim limitations: "a maximum gray level value available for the modulated current most significant bit data being greater than a maximum gray level value available for at least one of the delayed most significant bit data and the current most significant bit data" as recited in claim 1; "a maximum gray level value available for the modulated most significant bits of data being greater than the maximum gray level value available for a most significant bits of data for at least one of the $(n-1)^{th}$ frame and the nth frame, wherein n is a positive integer" as recited in claim 5; and "a maximum gray level value available for the modulated most significant bits of the RGB data is greater than a maximum gray level value available for the most significant bits of the RGB data" as recited in claim 9. Applicant respectfully disagrees with the Examiner's characterization of the Applicant's specification and claims.

Applicant refers the Examiner to Table 3 of the Applicant's specification, and the associated text in paragraphs [0045]-[0047]. As described in paragraph [0045] of the specification "the 8 bit lookup data modulates the most significant bit data MSB of the current frame...based on the 4 bit most MSB of the current frame... and the 4 bit MSB data of the previous frame..." Paragraph [0047] of the Applicant's specification begins "As shown in table 3, because the memory used in the 8 bit lookup table 74 has a data width of 8 bits, it is possible to express values which were impossible to express with 4 bits." As is evident from Table 3, the 4 bit MSB data of the previous frame (data in the left column of the table), and the 4 bit MSB of the current frame (data in the upper most row of the table), are limited to representing current values corresponding to 240 or lower. One of ordinary skill in the art would recognize from the cited description and Table 3 that the maximum gray level value is represented by 255, which corresponds to the largest number that can be expressed in eight binary bits. Thus, the maximum value of modulated data is greater than at least one of the current frame MSB data and the previous frame MSB data. Applicant submits that at least these portions of the Applicant's specification would reasonably convey to one skilled in the art that the inventor had possession of the claimed invention including the cited features of claims 1, 5, and 9. Accordingly, Applicant submits the claims 1, 5, and 9, and claims 2-4, 6-8, 10, 11, and 14-20 depending therefrom fully comply with 35 U.S.C. § 112, first paragraph, and respectfully requests that the rejection be withdrawn.

Claims 1-7 are rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Publication No. 2001/0038372 to Lee (hereinafter "Lee").

Claim 1 recites a method for driving a liquid crystal display including a combination of elements including "modulating the current most significant bit data in accordance with a difference between the delayed most significant bit data and the current most significant bit data, a maximum gray level value available for the modulated current most significant bit data being greater than a maximum gray level value available for at least one of the delayed most significant bit data and the current most significant bit data."

In rejecting claim 1 the Examiner cites Lee as disclosing "...an 8 bit example in which the six most significant bits are modified. Paragraph [0100] of Lee states, "Two bits from the current frame starting from the LSB are transmitted to the data gray scale modifier and are not modified." Further paragraph [0102] of Lee discloses, "The data gray signal converter 480 receives 6-bit R gray signals of the present frame and 6-bit R gray signals of the previous frame, generates modified gray signals considering the 6-bit R gray signals of the previous and present frames, adds the generated 6-bit gray signals and the 2-bit LSB gray signals of the present frame, and outputs finally modified 8-bit gray signals G_n'" In other words, Lee teaches using 6 bits of MSB data to produce 6 bits of modified MSB data, leaving the remaining 2 bits unchanged. Applicant submits that the number of bits of modulated or modified MSB data is not disclosed, taught, or suggested by Lee to be greater than the number of bits of the incoming MSB data (the number of bits in each case being six) and that there is no teaching or suggestion in Lee that the maximum gray scale level associated with the six bits of modulated current most significant bit data is greater than that of the six bits of current or delayed incoming MSB data. Accordingly, Applicant submits that claim 1, and claims 2-4 depending therefrom are allowable over Lee because Lee does not disclose, teach or suggest each and every element of claim 1, and requests that the rejection to claims 1-4 under U.S.C. § 102(e) be withdrawn.

Claim 5 recites a driving apparatus for a liquid crystal display having a combination of features including a modulator modulating the most significant bits of data of the nth frame in accordance with a difference between the most significant bits of data for the (n-1) th frame and the most significant bits of data for the nth frame, a maximum gray level value available for the modulated most significant bits of data being greater than a maximum gray level value available for the most significant bits of data for at least one of the (n-1) th frame and the nth frame, wherein n is a positive integer." In rejecting claim 5, the Examiner refers to the rejection of claim 1, as demonstrating that Lee discloses this feature. Applicant submits that claim 5 is allowable over Lee for at least the same reasons as claim 1 and further in view of the distinguishing features recited in claim 5. Claims 6 and 7 are allowable at least because of their dependencies from claim 5. Accordingly, Applicant requests that the rejection to claims 5-7 be withdrawn.

Claims 8-13 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Lee in view of U.S. Publication No. 2001/0043178 to Okuzono et al. (hereinafter "Okuzono"). Applicant notes that claims 12 and 13 were cancelled by a previous amendment and submits that the rejections to claims 12 and 13 are moot.

As discussed above, claim 5 is not anticipated by Lee. Okuzono discloses a liquid crystal display where the polarity of the write signal is inverted every plurality of lines to prevent the occurrence of horizontal stripes. Applicant submits that Okuzono does not cure the deficiencies of Lee with respect to claim 5. Accordingly, Applicant submits that claim 8 is allowable over the cited references at least because of its dependency from claim 5.

Claim 9 recites a liquid crystal display having a combination of features including "a data modulator modulating most significant bits of the RGB data based on a look-up table storing modulated most significant bits of the RGB data, wherein a maximum gray level value available for the modulated most significant bits of the RGB data is greater than a maximum gray level value available for the most significant bits of the RGB data." The Examiner refers to the discussion of claim 1 as evidence that Lee discloses this feature. Applicant submits that Lee fails to teach or suggest the cited element of claim 9 for the same reasons discussed above with respect to claim 1 and that Okuzono does not cure the deficiencies of Lee with respect to claim 9. Accordingly, Applicant submits that claim 9 is allowable over the cited references and that claims 10 and 11 are allowable at least because of their dependencies from claim 9.

Applicant believes the foregoing arguments place the application in condition for allowance and early, favorable action is respectfully solicited.

If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at (202) 496-7500 to discuss the steps necessary for placing the application in condition for allowance. All correspondence should continue to be sent to the below-listed address.

If these papers are not considered timely filed by the Patent and Trademark Office, then a petition is hereby made under 37 C.F.R. § 1.136, and any additional fees required under 37 C.F.R. § 1.136 for any necessary extension of time, or any other fees required to complete the filing of this response, may be charged to Deposit Account No. 50-0911. Please credit any overpayment to deposit Account No. 50-0911. *A duplicate copy of this sheet is enclosed.*

Dated: April 26, 2006

Respectfully submitted,

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